Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 (Cancelled).
- 2 (Previously Presented). A compound represented by formula [2]

$$X^3$$
 X^4
 F
 F
 F
 X^8
 X^9
 X^2
 X^1
 F
 F
 F
 X^8
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

3 (Previously Presented). A compound represented by Formula [3]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

- 4 (Cancelled).
- 5 (Withdrawn). A method of producing a compound represented by formula [13]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl

group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group), comprising the step of

producing a compound represented by formula [13] by reacting a compound represented by formula [11]

(wherein X^1 , X^2 , X^3 , and X^4 represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group) with a compound represented by formula [12]

(wherein X^8 , X^9 , X^{10} , and X^{11} represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) in the presence of a Lewis acid.

6 (Withdrawn). The production method according to claim 5, wherein the Lewis acid comprises aluminum chloride.

7 (Withdrawn). A method of producing a compound represented by formula [14]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for

formula [13]), comprising the step of

producing a compound represented by formula [14] by reacting a compound represented by formula [13]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

8 (Withdrawn). A method of producing a compound represented by formula [15]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for formula [13]), comprising the step of

producing a compound represented by formula [15] by reacting a compound represented by formula [13]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

9 (Withdrawn). A method of producing a compound represented by formula [14]

$$X^3$$
 X^4
 X^5
 X^6
 X^7
 X^8
 X^9
 X^1
 X^6
 X^7
 X^8
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for formula [15]), comprising the step of

producing a compound represented by formula [14] by reacting a compound represented by formula [15]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

10 (Withdrawn). A method of producing a compound represented by formula [16]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for formula [13]), comprising the step of

producing a compound represented by formula [16] by reacting a compound represented by formula [13]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

11 (Withdrawn). The production method according to any of claims 7 to 10, wherein the fluorinating agent comprises sulfur tetrafluoride.

12 (Withdrawn). A method of producing a compound represented by formula [2]

$$X^3$$
 X^4
 F
 F
 F
 X^8
 X^9
 X^2
 X^1
 F
 F
 F
 X^8
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for formula [14]), comprising the step of

producing a compound represented by formula [2] by reacting a compound represented by formula [14]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a reducing agent.

13 (Withdrawn). A method of producing a compound represented by formula [2]

$$X^{3}$$
 X^{4}
 F
 F
 F
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} are defined as for formula [16]), comprising the step of

producing a compound represented by formula [2] by reacting a compound represented by formula [16]

$$X^{3}$$
 X^{4}
 X^{7}
 X^{7}
 X^{7}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a reducing agent.

14 (Withdrawn). The production method according to claim 12 or 13, wherein the reducing agent comprises zinc, iron, copper, nickel, palladium, or a combination thereof.

15 (Withdrawn). A compound represented by formula [13]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

16 (Withdrawn). A compound represented by formula [14]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

17 (Withdrawn). A compound represented by formula [15]

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted annumber of a substituted or unsubstituted naphthacenyl

group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

18 (Withdrawn). A compound represented by formula [16]

$$X^{3}$$
 X^{4}
 X^{7}
 X^{7}
 X^{7}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^8 , X^9 , X^{10} , and X^{11} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted anaphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

19 (Withdrawn). A method of producing a compound represented by formula [22]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{14}
 X^{16}
 X^{12}
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} are defined as for formula [21]), comprising the step of

producing a compound represented by formula [22] by reacting a compound represented by formula [21]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

20 (Withdrawn). A method of producing a compound represented by formula [23]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} are defined as for formula [21]), comprising the step of

producing a compound represented by formula [23] by reacting a compound represented by formula [21]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group

and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

21 (Withdrawn). A method of producing a compound represented by formula [22]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{14}
 X^{14}
 X^{12}
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} are defined as for formula [23]), comprising the step of

producing a compound represented by formula [22] by reacting a compound represented by formula [23]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{14}
 X^{14}
 X^{12}
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to

form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

22 (Withdrawn). The production method according to any of claims 19 to 21, wherein the fluorinating agent comprises sulfur tetrafluoride.

23 (Withdrawn). A method of producing a compound represented by formula [3]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} are defined as for formula [22]), comprising the step of

producing a compound represented by formula [3] by reacting a compound represented by formula [22]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{14}
 X^{14}
 X^{12}
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8}

alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a reducing agent.

24 (Withdrawn). The production method according to claim 23, wherein the reducing agent comprises zinc, iron, copper, nickel, palladium, or a combination thereof.

25 (Withdrawn). A compound represented by formula [22]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted

naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

26 (Withdrawn). A compound represented by formula [23]

$$X^{3}$$
 X^{4}
 X^{5}
 X^{7}
 X^{8}
 X^{9}
 X^{10}
 X^{14}
 X^{16}
 X^{12}
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^7 , X^8 , X^9 , X^{10} , X^{11} , X^{12} , and X^{14} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).

27 (Withdrawn). A method of producing a compound represented by formula [32]

$$X^{3}$$
 X^{4}
 F
 F
 X^{6}
 F
 X^{8}
 X^{9}
 X^{1}
 F
 F
 X^{13}
 F
 F
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} are defined as for formula [31]), comprising the step of

producing a compound represented by formula [32] by reacting a compound represented by formula [31]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted or unsubstituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

28 (Withdrawn). A method of producing a compound represented by formula [33]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{6}
 X^{7}
 X^{1}
 X^{1

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} are defined as for formula [31]), comprising the step of

producing a compound represented by formula [33] by reacting a compound represented by formula [31]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{8}
 X^{9}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group

and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

29 (Withdrawn). A method of producing a compound represented by formula [32]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{7}
 X^{10}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} are defined as for formula [33]), comprising the step of

producing a compound represented by formula [32] by reacting a compound represented by formula [33]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{6}
 X^{7}
 X^{10}
 X^{10}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to

form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a fluorinating agent.

30 (Withdrawn). The production method according to any of claims 27 to 29, wherein the fluorinating agent comprises sulfur tetrafluoride.

31 (Withdrawn). A method of producing a compound represented by formula [4]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{7}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} are defined as for formula [32]), comprising the step of

producing a compound represented by formula [4] by reacting a compound represented by formula [32]

$$X^{3}$$
 X^{4}
 X^{6}
 X^{7}
 X^{1}
 X^{1}
 X^{10}
 X^{10}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl

group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group) with a reducing agent.

32 (Withdrawn). The production method according to claim 31, wherein the reducing agent comprises zinc, iron, copper, nickel, palladium, or a combination thereof.

33 (Cancelled).

34 (Withdrawn). A compound represented by formula [32]

$$X^3$$
 X^4
 F
 F
 X^6
 F
 X^8
 X^9
 X^2
 X^1
 F
 F
 X^{13}
 F
 F
 X^{11}
 X^{10}

(wherein X^1 , X^2 , X^3 , X^4 , X^6 , X^8 , X^9 , X^{10} , X^{11} , and X^{13} represent fluorine, hydrogen, a substituted or unsubstituted C_{1-8} alkyl group, a substituted or unsubstituted phenyl group, a

substituted or unsubstituted naphthyl group, a substituted or unsubstituted anthracenyl group, a substituted or unsubstituted naphthacenyl group, or a substituted or unsubstituted pentacenyl group, and may be the same or different; or X^2 is bonded to X^3 to form a monocyclic or condensed polycyclic hydrocarbon group and/or X^9 is bonded to X^{10} to form a monocyclic or condensed polycyclic hydrocarbon group).